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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/12/2005

Werner Harter

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EXAMINER

TRIMMINGS, JOHN P

ART UNIT

PAPER NUMBER

2117

MAIL DATE

DELIVERY MODE

02/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,495	Applicant(s) HARTER ET AL.	
	Examiner JOHN P. TRIMMINGS	Art Unit 2117	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the applicant's amendment dated 12/18/2007.

The applicant has amended claims 11-15 and 20.

Claims 11-20 are pending.

Response to Amendment

1. In view of the amendments to the claims and the arguments presented in the Remarks of the amendment dated 12/18/2007, the examiner withdraws all objections and rejections presented in the previous office action dated 9/19/2007. The examiner also approves entry of the applicant's Substitute Specification.
2. Although the examiner has withdrawn the rejections of claims 11-20 under 35 USC 102 and 103 (item 2 above), the examiner presents herein (below) new rejections in view of the revised scope of the independent claims.

Claim Rejections - 35 USC § 102 (New)

3. Claims 11-12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sim, US Patent No. 6199184.

As per claims 11 and 20:

Sim teaches a method based on a device for forming a signature (see FIG. 4 where the signature output is S1-S6), comprising: a shift register (FIG. 4 42-1 as one shift register) having a predefined number of bit position memory devices (FIG. 4, 6 total

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bits), to which input data (6 bits) to be tested (FIG. 4, Pin P1-P6) is applied bit-by-bit and in parallel (FIG. , P1->43-1 in two clock cycles for bit-by-bit and P1-P6 as a word in parallel in one clock cycle) as successive data words (see Abstract and) and which serially shift the input data forward in a predefined cycle (standard MISR operation, see Background column 3 lines 39-46 for example and see feedback in FIG. 4 45 to 43-1), a signature being formed in the shift registers (the 42-1 section generates a signature, see Abstract, Table 1-4) after a predefined number of data words and cycles (standard MISR operation, see Background and Table 4 for example); and a code generator (FIG. 4 42-2 is part of the shift register and performs a coding function) which generates at least one additional bit position (FIG. 4, 42-2 generates 6 bit positions) in at least one additional shift register (FIG. 4, 42-2) from each data word (6 bits) in the signature (FIG. 4 the Q outputs of 42-1 to the 42-2 code generator and out through S1-S6).

As per claim 12:

Sim further teaches the device according to claim 11, wherein the individual shift registers (FIG. 4 42-1 or 42-2) are connected by antivalence points (FIG. 4 44-1 to 44-6 or 47-1 to 47-6), and the individual bits of the data words (FIG. 4 Pin P1-P6) at the antivalence points, as well as the at least one additional bit position of the code generator (FIG. 4 each Q output feeds each XOR input to 42-2), are inserted to form the signature (FIG. 4 S1-S6).

Claim Rejections - 35 USC § 103 (New)

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sim, US Patent No. 6199184. Sim further renders obvious the device according to claim 11, wherein the individual shift registers are connected by equivalence points (FIG. 4 44-1 to 44-6 or 47-1 to 47-6), and the individual bits of the data words (FIG. 4 Pin P1-P6), as well as the at least one additional bit position of the code generator, are inserted at the equivalence points to form the signature (FIG. 4 each Q output feeds each XOR input to 42-2), are inserted to form the signature (FIG. 4 S1-S6). The use of an inverted XOR position (equivalence point) has not been claimed by the applicant as having a patentable distinction or feature that would distinguish the device from other devices. Instead, this equivalence point appears to be in the realm of design requirements in the practice of sound engineering principles, to reduce aliasing, rather than a unique circuit feature that would be patentable, and therefore represents a prima facie case of obviousness.

Applicants can rebut a prima facie case of obviousness by showing the criticality of the claimed arrangement. "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed.

Cir. 1990). See MPEP § 716.02 - § 716.02(g) for a discussion of criticality and unexpected results.

5. Claims 14-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Sim, US Patent No. 6199184 as applied to claim 11 above, and further in view of Biswas, "Design of UED-AUED Codes from Berger's AUED Code", IEEE VLSI Design, 1997, January 1997, pp 364-369. Wherein Sim fails to specifically point out, the analogous reference of Biswas discusses several error detection and correction methodologies, including parity, ECC, Hamming, Berger, Bose and generic coding (see the document throughout). It would have been obvious to one of ordinary skill to implement the coding methods of Sim in a the well known manner prescribed by Biswas, where one could combine the elements as claimed by the applicant by known methods in the art, and that in the combination, each combined element would merely perform the same function as it did separately in Biswas, yielding predictable results. The result of said combination, would have been obvious to one of ordinary skill at the time of the invention in view of the above rationale, therefore the claim is rejected.

Conclusion

6. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN P. TRIMMINGS whose telephone number is (571)272-3830. The examiner can normally be reached on Monday through Thursday, 7:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P Trimmings/
Primary Examiner,
Art Unit 2117

jpt